

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS
AND DISTRICT COMMANDS

SUBJECT: Implementation Guidance for Section 219 of the Water Resources Development Act of 1999, Nonstructural Flood Control Projects

1. Purpose. The purpose of this memorandum is to provide guidance for the analysis of nonstructural flood control projects in accordance with Section 219 of the Water Resources Development Act of 1999 (WRDA 99). Section 73 of the Water Resources Development Act of 1974 requires consideration of nonstructural alternatives in flood damage reduction studies.
2. Applicability. All projects proposed after the date of enactment of WRDA 99 are required to use the procedures described in this guidance. This includes projects proposed for congressional authorization as well as Section 205 projects approved after the date of enactment of WRDA 99.
3. Section 219 (a) of WRDA 99 directs that the Corps calculate benefits for nonstructural flood damage reduction using methods similar to those used in calculating the benefits for structural projects, including similar treatment in calculating the benefits from losses avoided. It further states that in carrying out this directive, the Corps should avoid double counting of benefits. Nonstructural projects, such as floodproofing, raising homes and flood warning, already use the same method to calculate flood damage reduction benefits as structural projects and therefore no change is required in analytical procedures for these types of projects. However, Army Corps of Engineers Planning Guidance currently directs the use of only the externalized portion of flood damages prevented in calculating benefits for evacuation projects. For evacuation projects, the current guidance *explicitly* assumes that the internalized portion of flood damages is reflected in reduced market value of the properties used in the calculation of evacuation costs (i.e., the cost of buyout of the floodplain). This internalized portion includes uninsured losses, flood insurance premiums, any deductible and agent's fees. Typically, externalized flood damages are developed by calculating total flood damages using standard depreciated replacement cost techniques as in structural flood control projects. Then the internalized portion of flood damages are subtracted. The subtraction of the internalized portion of flood damages is intended to remove potential double counting from the benefit-cost calculation. The following new procedures will be used to implement section 219 (a):

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a. Benefit Calculation. Flood damage reduction benefits for evacuation projects will be calculated as the total flood damages reduced. No correction will be made to remove the internalized portion of flood damages in the benefit calculation.

b. Real Estate Costs. In order to avoid double counting of the internalized portion of flood damages reduced, adjustments need to be made to the real estate costs used in the benefit-cost calculation. Economic analysis for evacuation alternatives will henceforth use comparable flood-free land costs in the valuation of floodplain land. Flood-free land cost is the cost of comparable flood-free land but without the flood-risk (defined as outside the FIA-designated 100-year floodplain). For the purposes of this guidance, land costs are defined as the land and associated structures.

(1) Cost information developed by Real Estate personnel during the feasibility study should be used for this cost calculation. As part of the Real Estate Plan, the cost (market value) to acquire the floodplain property is determined by a gross appraisal. Additionally, for residential properties under Public Law 91-646, the amount by which the market value of a replacement dwelling (non-floodplain property) exceeds the market value of the displacement dwelling (floodplain property) also is determined. This cost (the market value of the floodplain property, land and structures, plus any additional amount to equal the market value of a comparable replacement dwelling outside the floodplain) is the flood-free property cost. A comparable replacement residential property under Public Law 91-646 means a dwelling that is decent, safe, and sanitary and one that is similar with respect to features, size and location. However, for purposes of this calculation, if the floodplain dwellings are not up to decent, safe, and sanitary standards, the incremental cost to upgrade to a decent, safe, and sanitary home is considered a betterment and must be subtracted from the flood-free cost. Also, where last resort housing is anticipated, the market value of a comparable home outside the floodplain should be used, without regard to whether the home is available for acquisition.

(2) Comparable flood-free estimates for non-residential properties are not developed for compliance with Public Law 91-646. However, this information will now be required and can be developed by comparing property characteristics with information available on a multiple listing service or similar service. Coordination and involvement of real estate personnel is essential in determining appropriate non-floodplain land values.

c. The determination of non-floodplain land values will be described and documented in all decision documents where evacuation plans are considered. Note that this adjustment in costs is intended for use in the economic evaluation only and should not otherwise affect the financial costs associated with evacuation of the floodplain.

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4. Section 219 (b) provides for the reevaluation of a previously authorized flood control project to consider nonstructural alternatives in light of the economic evaluation changes made by Section 219(a) of the Act if requested by a non-Federal interest. The following procedures will be used to implement section 219 (b).

a. In general, the reevaluation of authorized projects to consider nonstructural procedures shall be performed in a manner consistent with review of a completed project or restudy of a deferred project as described in the annual program EC. In all cases an initial appraisal and a reevaluation study at 50-50 cost sharing will be required. If the project has already been constructed, reevaluation will follow the procedures for "Review of a Completed Project" (Section 216) as described in the annual program EC. If the project is authorized but not yet constructed, an initial appraisal to determine whether the nonstructural alternative is justified is required. If the nonstructural alternative is justified, a cost-shared general reevaluation study would follow. Request for funding for such studies should follow normal budgetary procedures for a General Investigations new start.

b. Non-Federal interests must submit a written request for a reevaluation study to consider nonstructural alternatives through the District and Major Subordinate command (MSC). Districts will forward an assessment of the costs for the reevaluation along with the written request through MSC to HQUSACE (attn: CECW-B). Federal funds associated with the reevaluation will be subject to availability.

5. Section 219 (c) modifies Section 103(b) of the Water Resources Development Act of 1986 to clarify cost sharing for nonstructural measures. The section requires that at any time during construction of a nonstructural project, if the Corps determines that the costs of land, easements, rights-of-way, dredged material disposal areas, and relocations (LERRDs) for the project, in combination with other project costs contributed by the non-Federal sponsor, will exceed 35 percent, any additional costs for the project (not to exceed 65 percent of the total costs of the project) shall be a Federal responsibility and shall be contributed during construction as part of the Federal share. The purpose of this provision is to make clear that the Government should not wait until the final accounting is completed to reimburse the non-Federal sponsor for costs it has contributed above its 35 percent share of total project costs.

a. Current Corps policy is that the Government, through reimbursements, direct financing of construction, and/or the assumption of LERRD financing responsibilities, becomes responsible for all additional project costs as soon as the Government determines that the value of the non-Federal sponsor's contributions has reached 35 percent of total project costs. This determination and the follow-on financial actions could take place during construction. Therefore, current Corps policy is consistent with section 219(c)'s requirement that costs above the non-Federal sponsor's 35 percent share

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shall be contributed by the Government during construction, rather than as a reimbursement following completion of the final accounting.

b. The existing model PCA for Section 205 nonstructural projects may be used as the basis for developing the PCA for a specifically authorized nonstructural project. District offices should contact HQUSACE (attn: CECW-PC) with any questions concerning nonstructural flood control project PCAs.

FOR THE COMMANDER:

/s/

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